FIG. 1

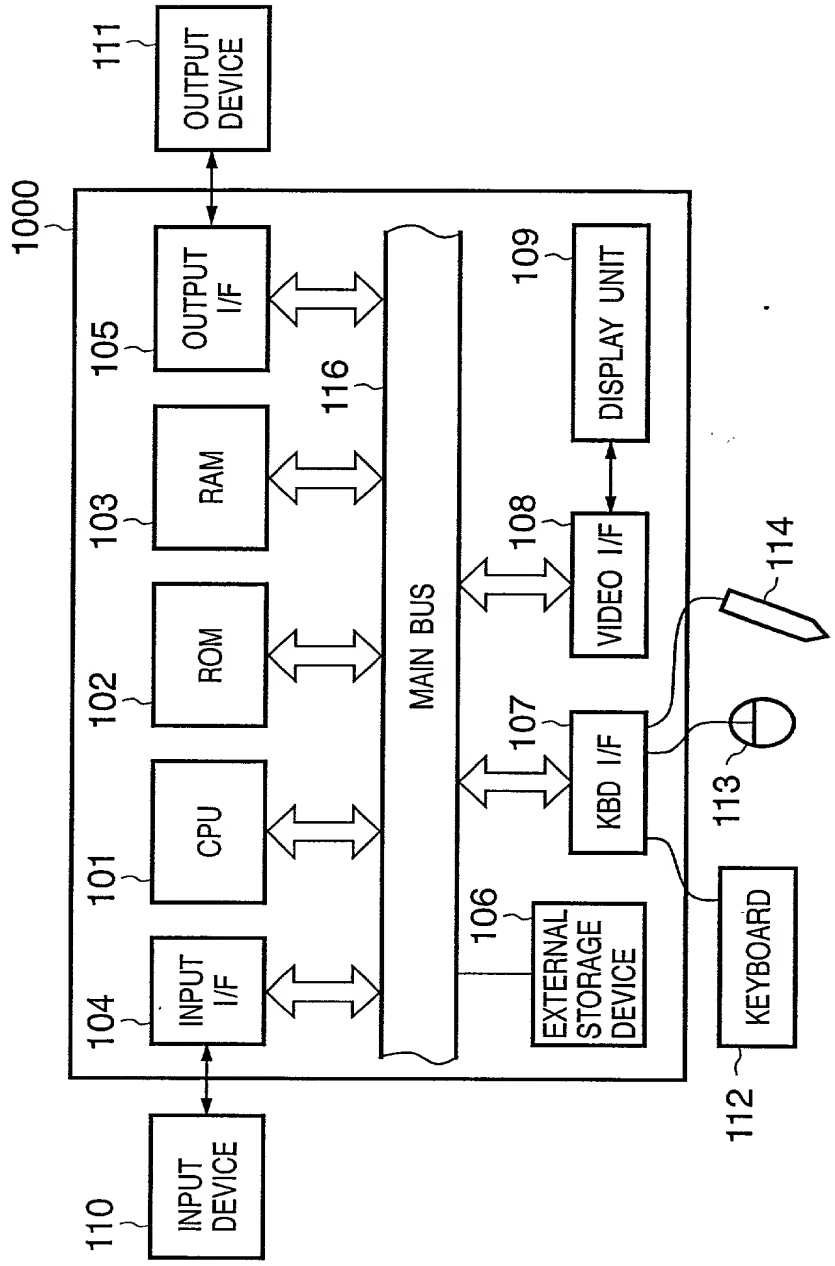

1000
111
OUTPUT DEVICE
OUTPUT I/F
105
116
109
DISPLAY UNIT
RAM
103
108
VIDEO I/F
114
ROM
102
MAIN BUS
107
KBD I/F
113
CPU
101
106
EXTERNAL STORAGE DEVICE
KEYBOARD
112
INPUT I/F
104
INPUT DEVICE
110

FIG. 2

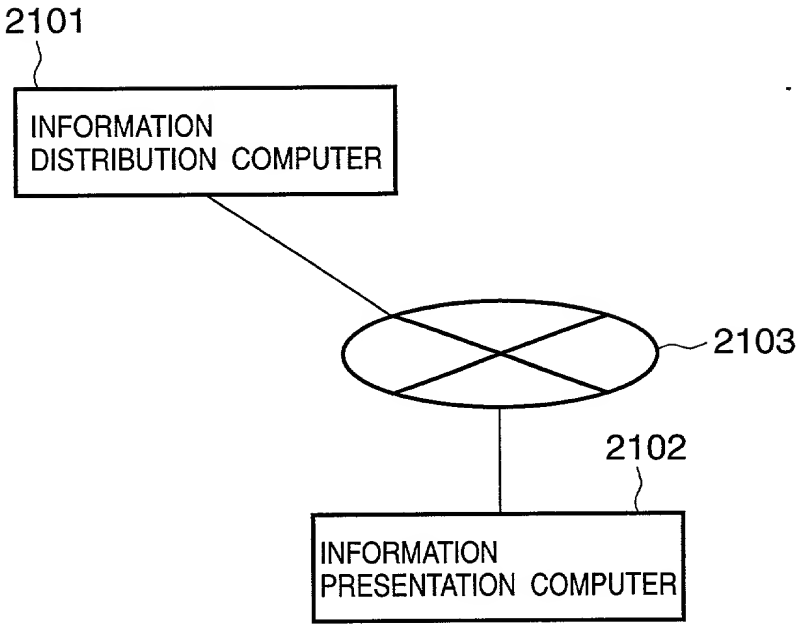

2101
INFORMATION DISTRIBUTION COMPUTER
2103
2102
INFORMATION PRESENTATION COMPUTER

FIG. 3

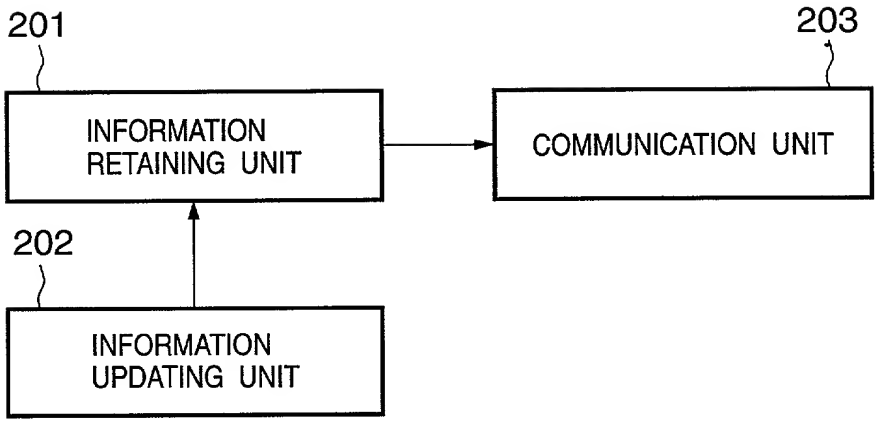

201
203
INFORMATION RETAINING UNIT
COMMUNICATION UNIT
202
INFORMATION UPDATING UNIT

FIG. 4

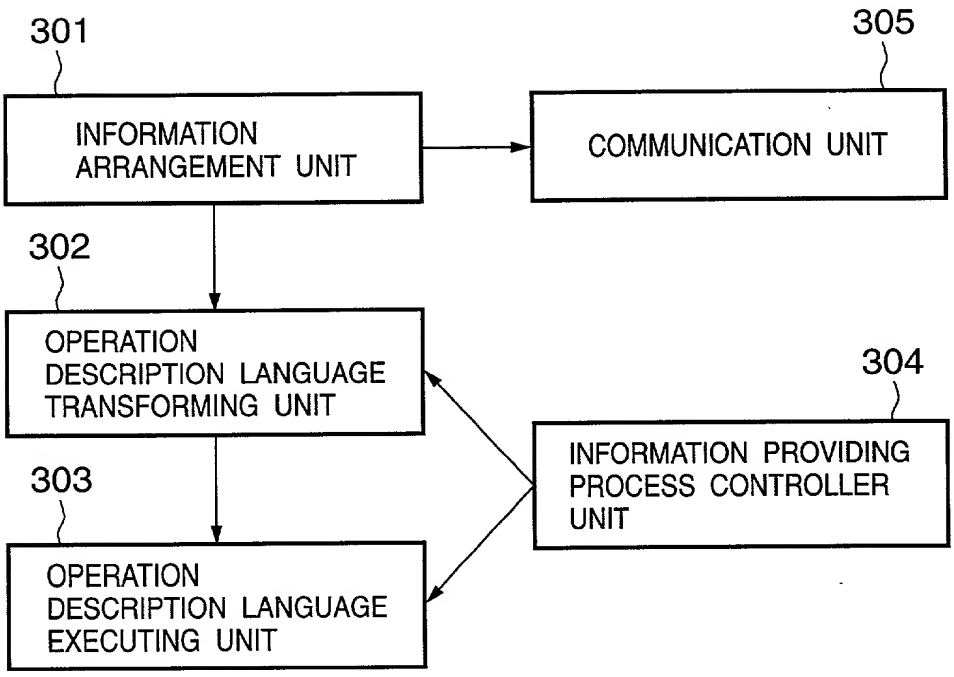

301
INFORMATION ARRANGEMENT UNIT
305
COMMUNICATION UNIT
302
OPERATION DESCRIPTION LANGUAGE TRANSFORMING UNIT
304
INFORMATION PROVIDING PROCESS CONTROLLER UNIT
303
OPERATION DESCRIPTION LANGUAGE EXECUTING UNIT

FIG. 5

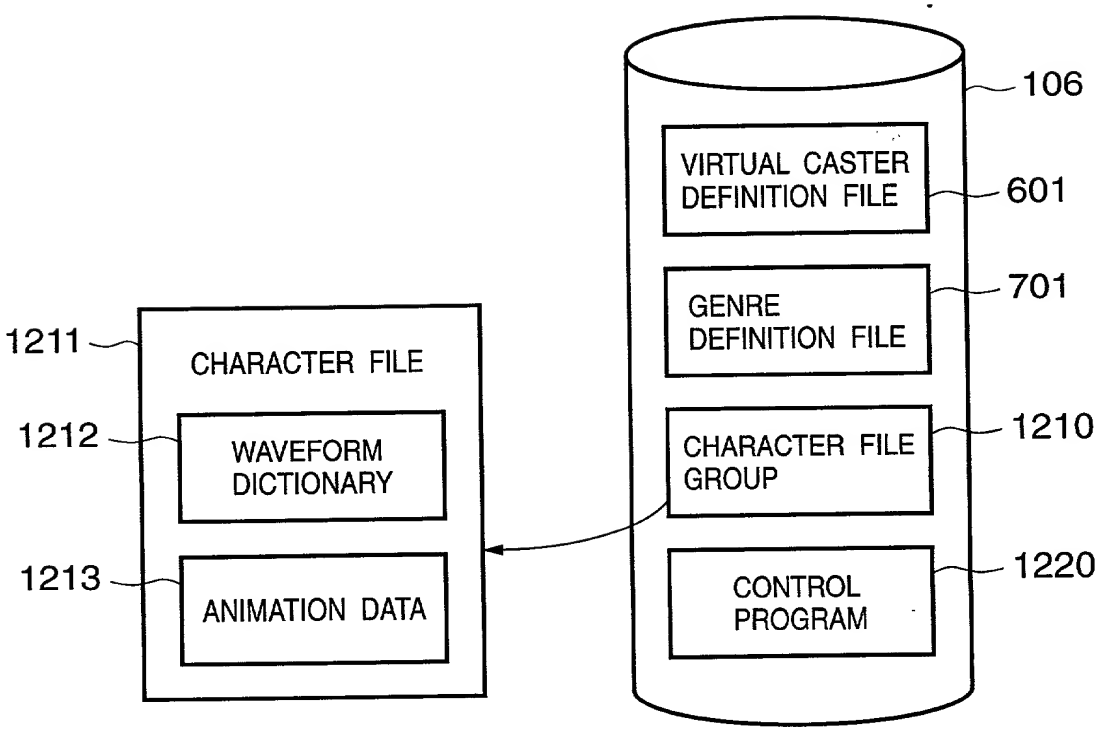

106
VIRTUAL CASTER DEFINITION FILE
601
GENRE DEFINITION FILE
701
CHARACTER FILE GROUP
1210
CONTROL PROGRAM
1220
1211
CHARACTER FILE
1212
WAVEFORM DICTIONARY
1213
ANIMATION DATA

FIG. 6

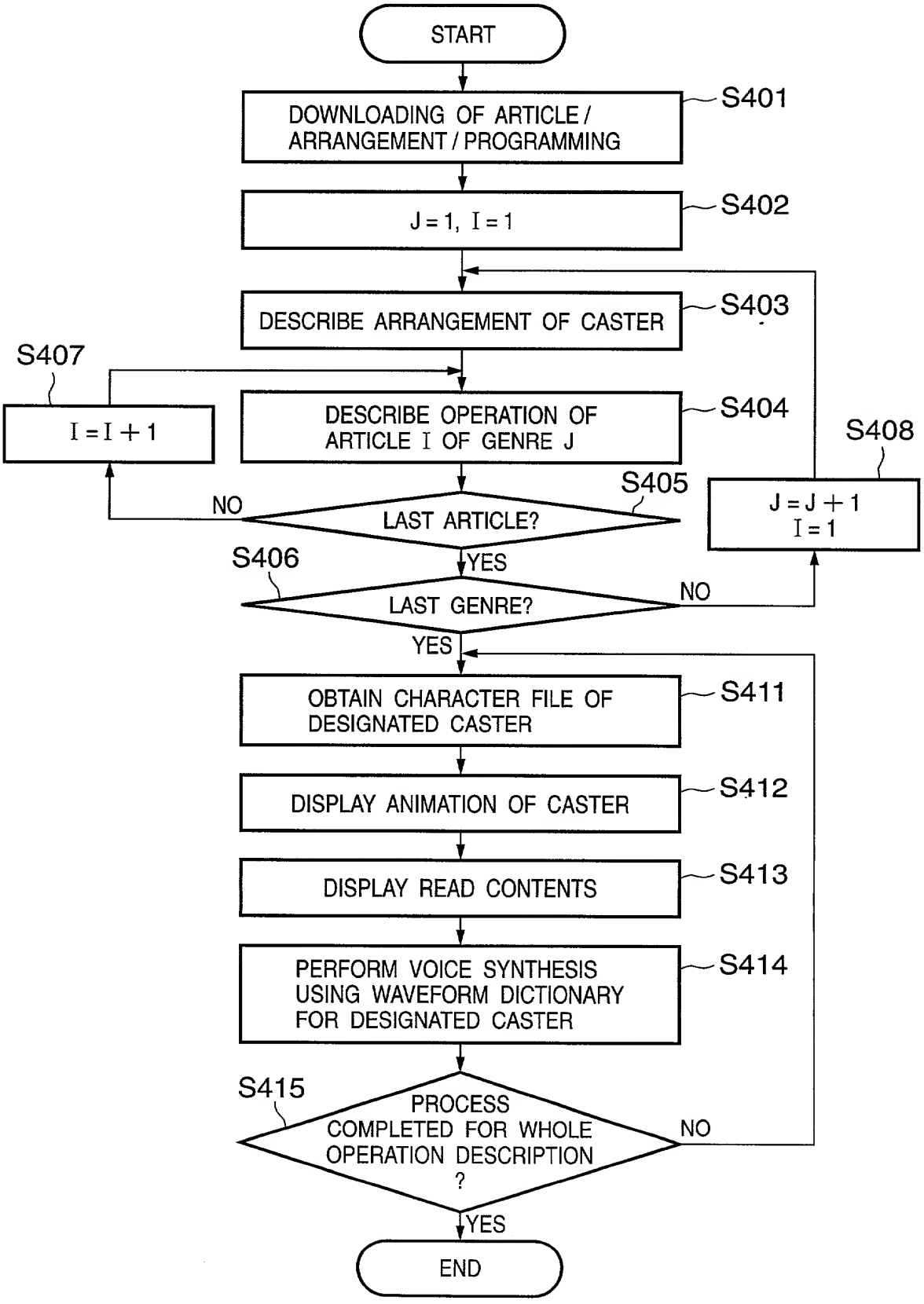

START
DOWNLOADING OF ARTICLE / ARRANGEMENT / PROGRAMMING
S401
J = 1, I = 1
S402
DESCRIBE ARRANGEMENT OF CASTER
S403
S407
I = I + 1
DESCRIBE OPERATION OF ARTICLE I OF GENRE J
S404
S408
J = J + 1
I = 1
S405
NO
LAST ARTICLE?
YES
S406
LAST GENRE?
NO
YES
OBTAIN CHARACTER FILE OF DESIGNATED CASTER
S411
DISPLAY ANIMATION OF CASTER
S412
DISPLAY READ CONTENTS
S413
PERFORM VOICE SYNTHESIS USING WAVEFORM DICTIONARY FOR DESIGNATED CASTER
S414
S415
PROCESS COMPLETED FOR WHOLE OPERATION DESCRIPTION ?
NO
YES
END

FIG. 7

501

GENRE NUMBER	NAME OF GENRE	CONTENTS
1	POLITICAL	HEADLINE : OPPOSITION PARTIES OPPOSING PRIME MINISTER'S ANNOUNCEMENT OF TAX REDUCTION POLICY BODY : PRIME MINISTER ××× ANNOUNCED A POLICY TO ENACT "SUBSTANTIAL TAX REDUCTION" NEXT YEAR...
		HEADLINE : TURNOUT OF VOTERS FOR UPPER HOUSE ELECTION EXPECTED TO GO UP. BODY : FOR THE FORTHCOMING UPPER HOUSE ELECTION, UNPRECEDENTED ATTENTION FOCUSED ON THE TURNOUT...
		⋮
2	FINANCIAL	HEADLINE : A SUDDEN FALL IN THE VALUE OF YEN IN N.Y. BODY : ON THE THIRD OF THIS MONTH, THE FINAL VALUE OF THE YEN AT THE NEW YORK STOCK EXCHANGE IS...
		HEADLINE : TOKYO STOCK PRICE IS CLOSING, SAGGING TO THE LEVEL OF 16000 BODY : INFLUENCED BY THE SUDDEN FALL IN THE VALUE OF YEN, INVESTORS OVERSEAS ARE INSECURE...
		⋮
3	SPORTS	HEADLINE : SOCCER TEAM REPRESENTING JAPAN WON THE PRELIMINARY CONTEST FOR THE OLYMPIC GAME! BODY : ON THE EIGHTEENTH OF THIS MONTH, THE SOCCER TEAM REPRESENTING JAPAN BEAT △△ BY 3 TO 1, AND WON PRELIMINARY CONTEST...
		HEADLINE : AMERICAN MEN'S GOLF TOURNAMENT POSTPONED DUE TO HEAVY RAIN BODY : A CHAMPIONSHIP OF THE AMERICAN GOLF TOUR SCHEDULED TO BE PLAYED TODAY...
		⋮
4	WEATHER	LOCAL : NATIONAL WHEN : THIS EVENING @@ TOMORROW @@ DAY AFTER TOMORROW WEATHER : SAPPORO @@ CLOUDY WITH TEMPORAL RAIN @@ RAINY AND SUBSEQUENTLY CLOUDY @@ CLOUDY AND SUBSEQUENTLY WITH OCCASIONAL CLEARED SKY WEATHER : SENDAI @@ CLOUDY @@ CLOUDY @@ CLOUDY WITH OCCASIONAL CLEARED SKY WEATHER : NIIGATA @@ CLOUDY @@ CLOUDY @@ CLOUDY WITH SCATTERED RAIN WEATHER : TOKYO @@ FINE AND SUBSEQUENTLY CLOUDY @@ CLOUDY AND SUBSEQUENTLY FINE @@ CLOUDY

FIG. 8

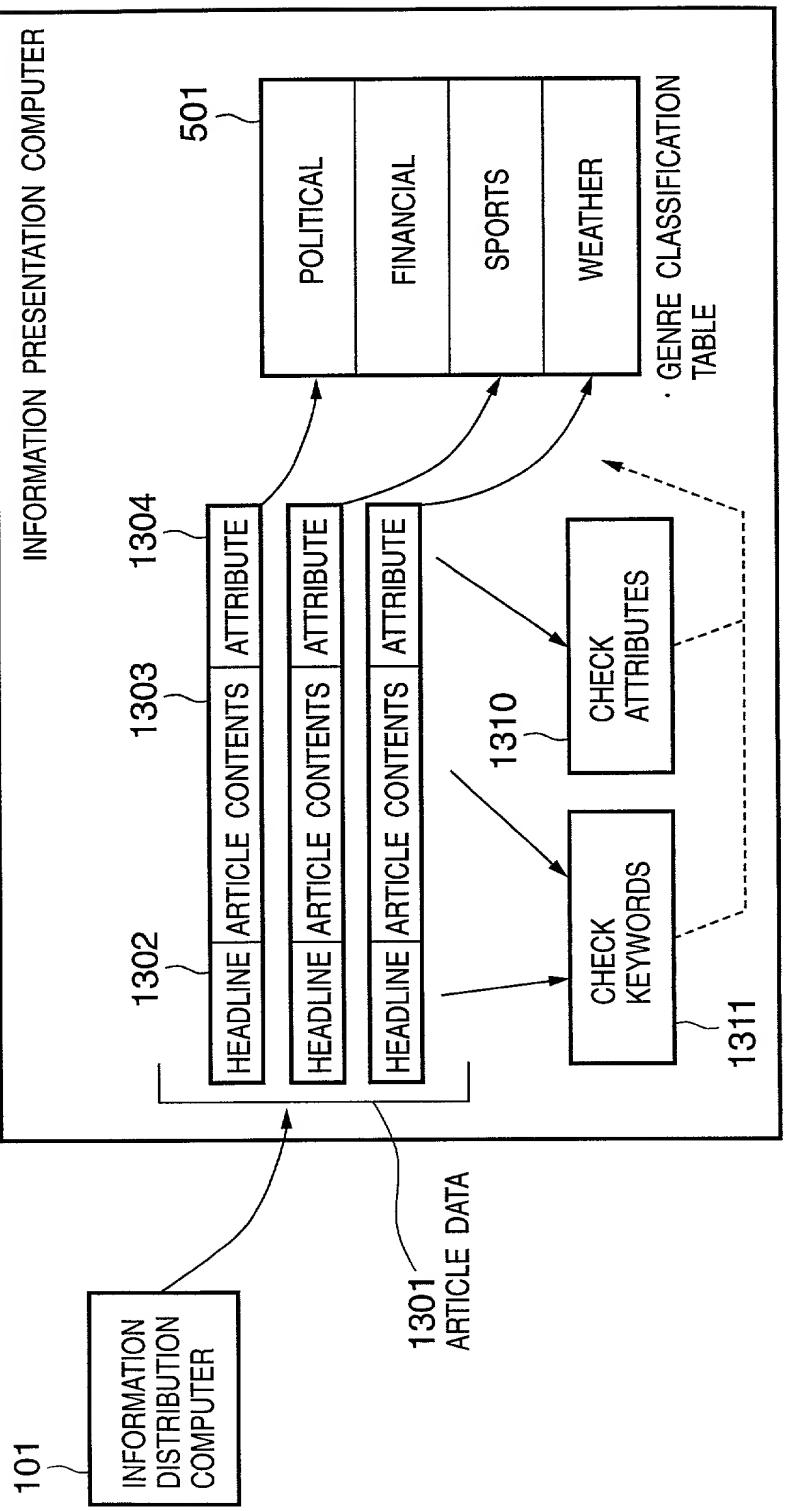

101
INFORMATION DISTRIBUTION COMPUTER
1301
ARTICLE DATA
102
INFORMATION PRESENTATION COMPUTER
1302
1303
1304
HEADLINE
ARTICLE CONTENTS
ATTRIBUTE
HEADLINE
ARTICLE CONTENTS
ATTRIBUTE
HEADLINE
ARTICLE CONTENTS
ATTRIBUTE
1310
CHECK ATTRIBUTES
1311
CHECK KEYWORDS
501
POLITICAL
FINANCIAL
SPORTS
WEATHER
· GENRE CLASSIFICATION TABLE

FIG. 9

601

```
< caster >
name = mainCaster
file = mainCaster.agt
color = white
< /caster >

< caster >
name = subCaster
file = subCaster.agt
color = pink
< /caster >

< caster >
name = WeatherCaster
file = WeatherCaster.agt
color = blue
< /caster >
```

FIG. 10

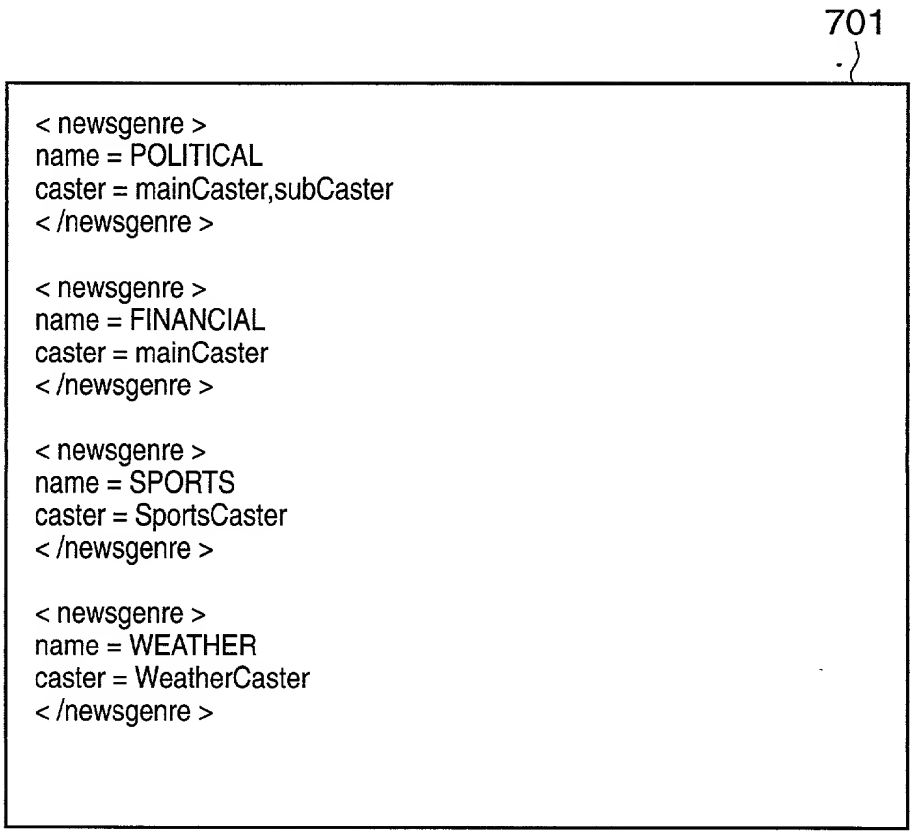

701
< newsgenre >
name = POLITICAL
caster = mainCaster,subCaster
< /newsgenre >
< newsgenre >
name = FINANCIAL
caster = mainCaster
< /newsgenre >
< newsgenre >
name = SPORTS
caster = SportsCaster
< /newsgenre >
< newsgenre >
name = WEATHER
caster = WeatherCaster
< /newsgenre >

FIG. 11

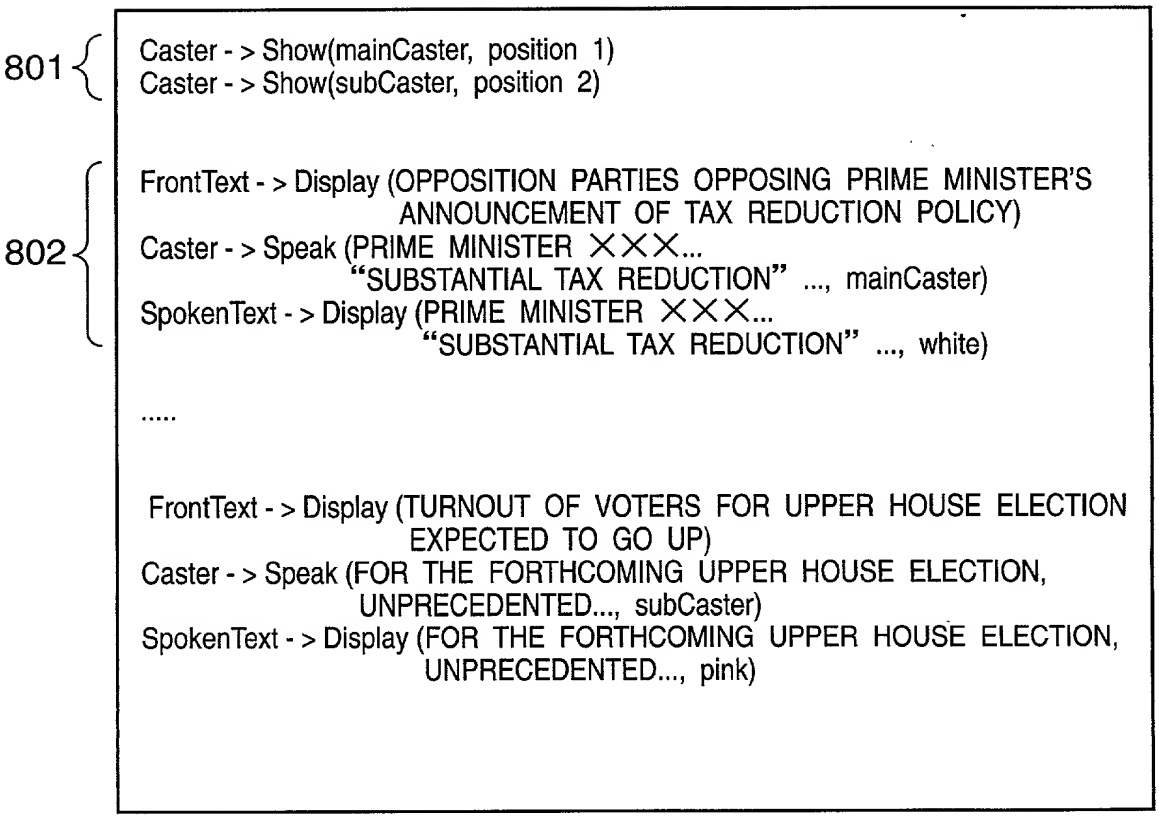

801
Caster - > Show(mainCaster, position 1)
Caster - > Show(subCaster, position 2)
802
FrontText - > Display (OPPOSITION PARTIES OPPOSING PRIME MINISTER'S ANNOUNCEMENT OF TAX REDUCTION POLICY)
Caster - > Speak (PRIME MINISTER XXX... "SUBSTANTIAL TAX REDUCTION" ..., mainCaster)
SpokenText - > Display (PRIME MINISTER XXX... "SUBSTANTIAL TAX REDUCTION" ..., white)
.....
FrontText - > Display (TURNOUT OF VOTERS FOR UPPER HOUSE ELECTION EXPECTED TO GO UP)
Caster - > Speak (FOR THE FORTHCOMING UPPER HOUSE ELECTION, UNPRECEDENTED..., subCaster)
SpokenText - > Display (FOR THE FORTHCOMING UPPER HOUSE ELECTION, UNPRECEDENTED..., pink)

FIG. 12

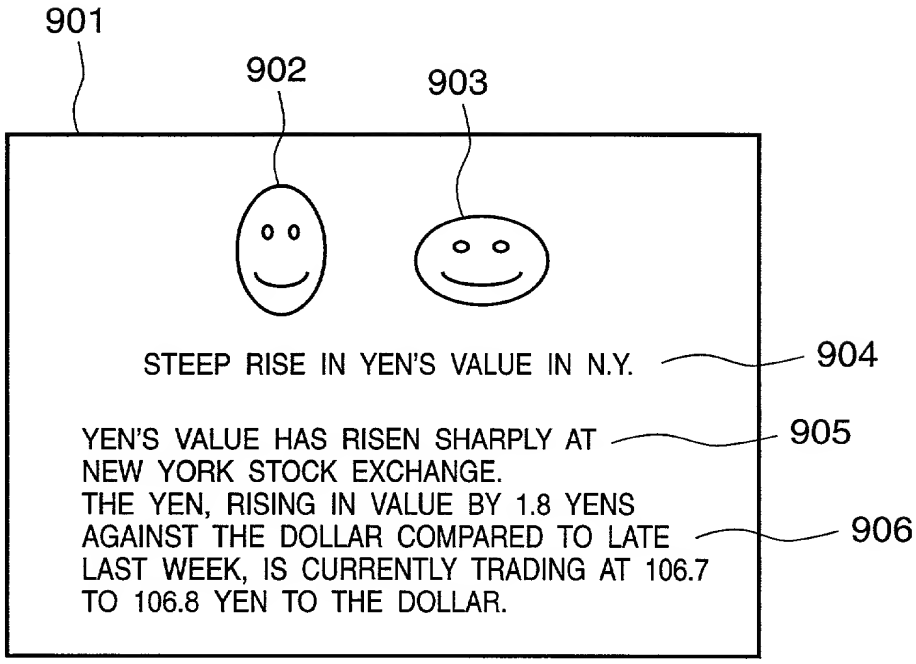

901
902
903
STEEP RISE IN YEN'S VALUE IN N.Y.
904
YEN'S VALUE HAS RISEN SHARPLY AT NEW YORK STOCK EXCHANGE.
905
THE YEN, RISING IN VALUE BY 1.8 YENS AGAINST THE DOLLAR COMPARED TO LATE LAST WEEK, IS CURRENTLY TRADING AT 106.7 TO 106.8 YEN TO THE DOLLAR.
906

FIG. 13

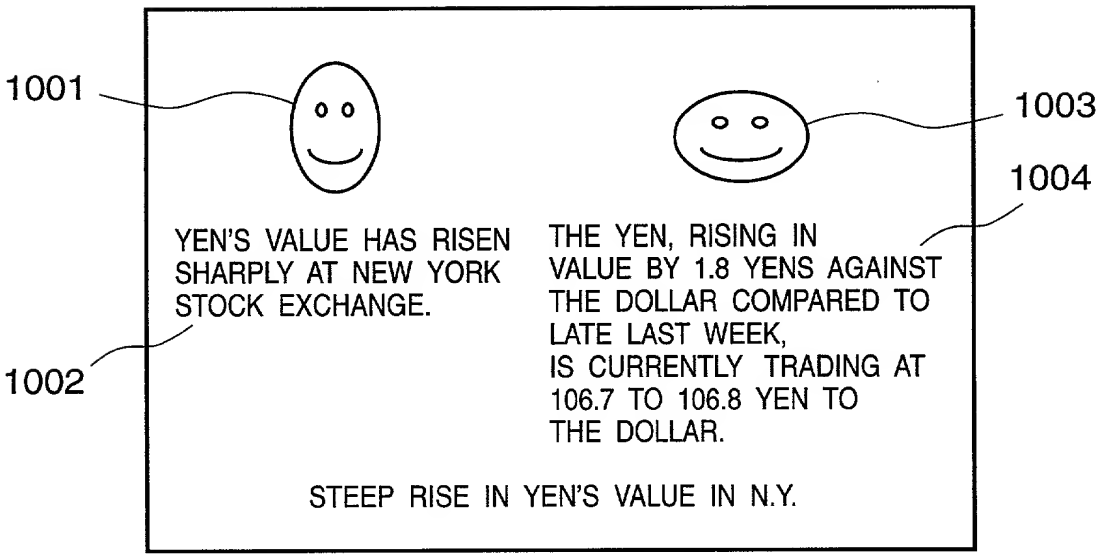

1001
1003
1004
YEN'S VALUE HAS RISEN SHARPLY AT NEW YORK STOCK EXCHANGE.
THE YEN, RISING IN VALUE BY 1.8 YENS AGAINST THE DOLLAR COMPARED TO LATE LAST WEEK, IS CURRENTLY TRADING AT 106.7 TO 106.8 YEN TO THE DOLLAR.
1002
STEEP RISE IN YEN'S VALUE IN N.Y.

FIG. 14

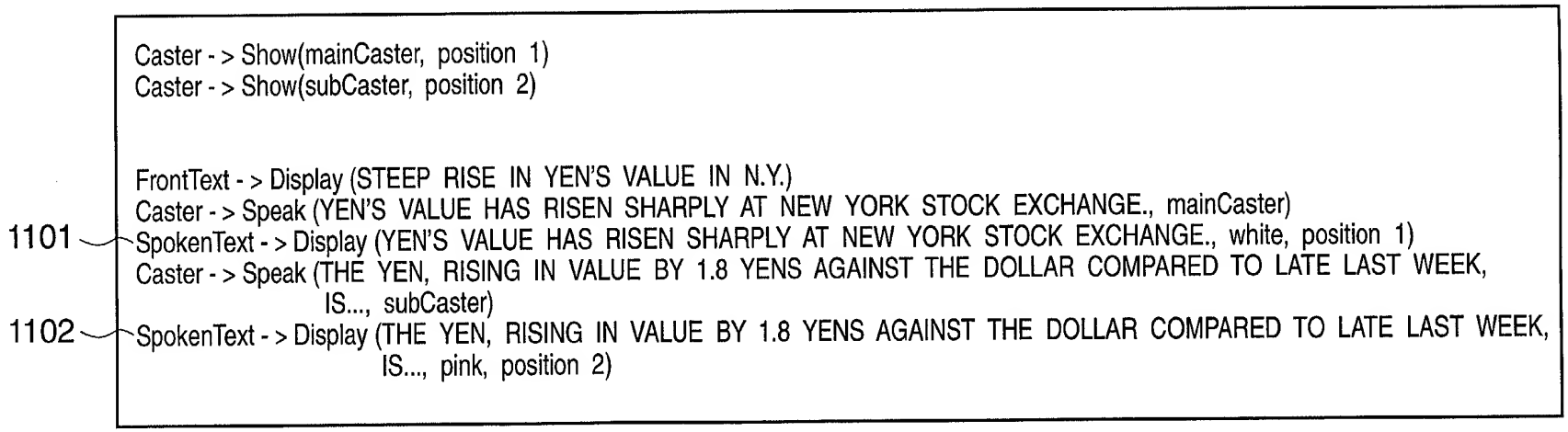

Caster - > Show(mainCaster, position 1)
Caster - > Show(subCaster, position 2)
FrontText - > Display (STEEP RISE IN YEN'S VALUE IN N.Y.)
Caster - > Speak (YEN'S VALUE HAS RISEN SHARPLY AT NEW YORK STOCK EXCHANGE., mainCaster)
1101
SpokenText - > Display (YEN'S VALUE HAS RISEN SHARPLY AT NEW YORK STOCK EXCHANGE., white, position 1)
Caster - > Speak (THE YEN, RISING IN VALUE BY 1.8 YENS AGAINST THE DOLLAR COMPARED TO LATE LAST WEEK, IS..., subCaster)
1102
SpokenText - > Display (THE YEN, RISING IN VALUE BY 1.8 YENS AGAINST THE DOLLAR COMPARED TO LATE LAST WEEK, IS..., pink, position 2)

FIG. 15

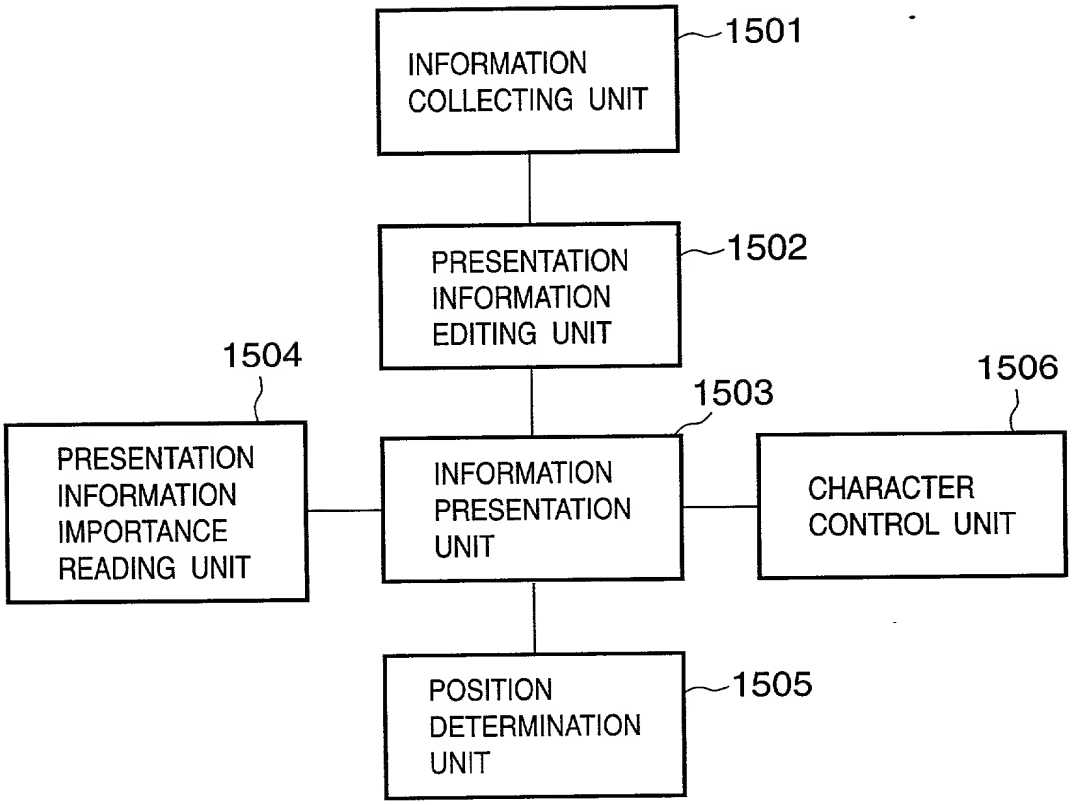

INFORMATION COLLECTING UNIT
1501
PRESENTATION INFORMATION EDITING UNIT
1502
1504
PRESENTATION INFORMATION IMPORTANCE READING UNIT
1503
INFORMATION PRESENTATION UNIT
1506
CHARACTER CONTROL UNIT
POSITION DETERMINATION UNIT
1505

FIG. 16

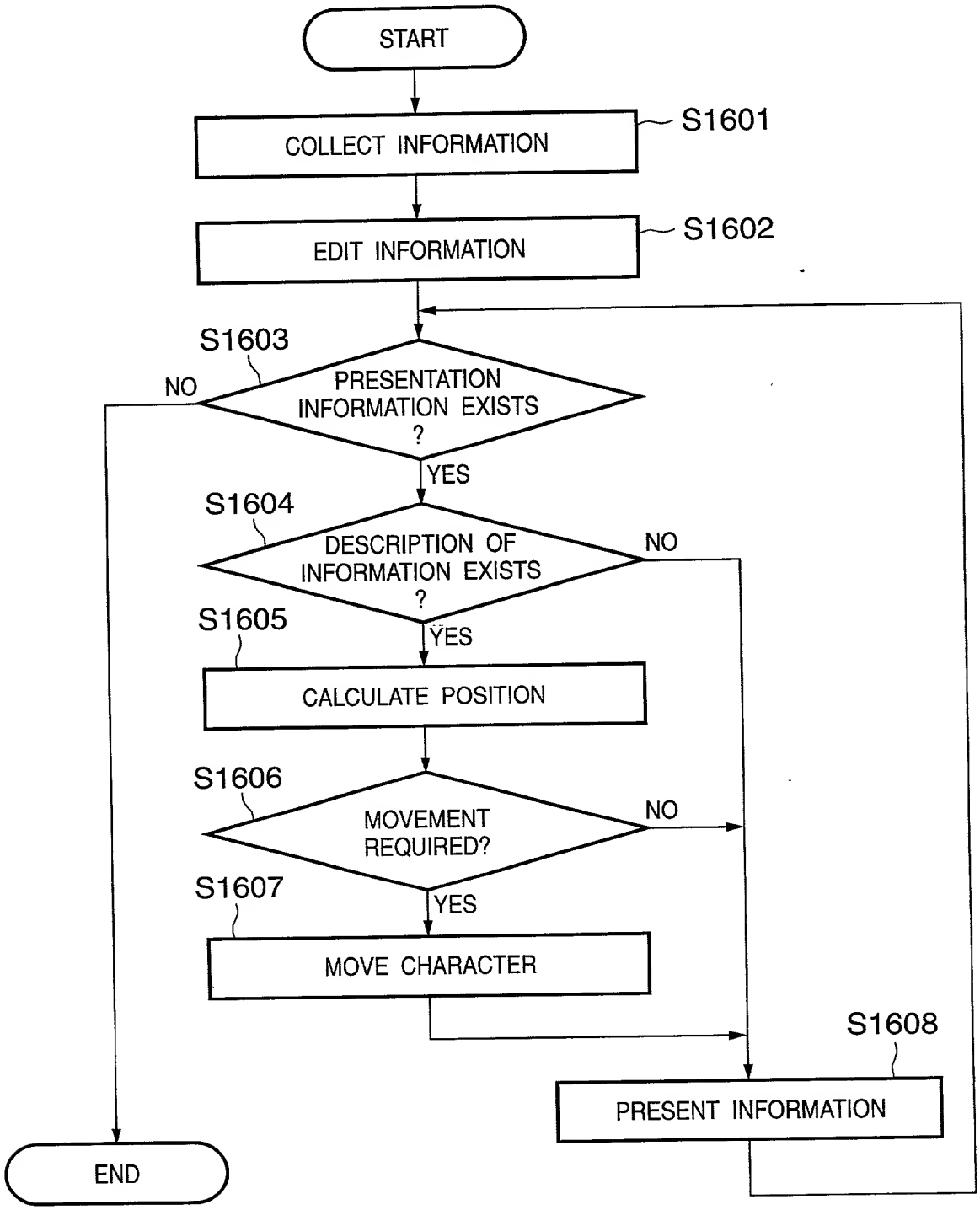

START
COLLECT INFORMATION
S1601
EDIT INFORMATION
S1602
S1603
PRESENTATION INFORMATION EXISTS ?
NO
YES
S1604
DESCRIPTION OF INFORMATION EXISTS ?
NO
YES
S1605
CALCULATE POSITION
S1606
MOVEMENT REQUIRED?
NO
YES
S1607
MOVE CHARACTER
S1608
PRESENT INFORMATION
END

FIG. 17

NAME	TYPE	DEGREE OF IMPORTANCE	IMPORTANCE POINT
WEATHER SATELLITE IMAGE	IMAGE	IMPORTANT	CENTER
AIRLINE SEAT AVAILABILITIES	LETTERS	IMPORTANT	CENTER

FIG. 18

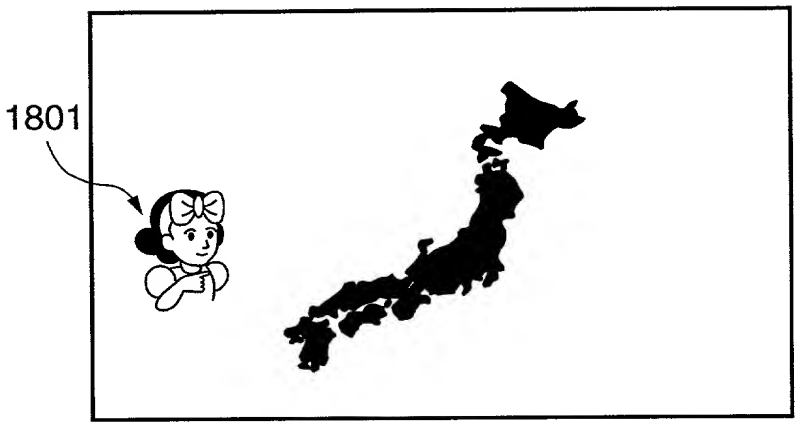


FIG. 19

1901

AIRLINE SEAT AVAILABILITIES

AIRLINE AVAILABILITIES ARE AS FOLLOWS.
(A DESIGNATED AIRPORT WILL BE DISPLAYED IN PINK)

SALES DATE : SEP. 11 DEPARTURE : TOKYO (HANEDA AIRPORT)
DESTINATION : SAPPORO (CHITOSE AIRPORT)

○ : SEATS UNOCCUPIED △ : FEW SEATS UNOCCUPIED
× : ALL THE SEATS OCCUPIED
— : UNDEFINED, PRESALE OR COMPLETION OF SALE

	DEPARTURE (TIME)	DESTINATION (TIME)	FLIGHT	SUPER SEAT
1.	TOKYO (HANEDA)(06:55)	SAPPORO(CHITOSE)(08:25)	ANA053	△△○—○————
2.	TOKYO (HANEDA)(07:55)	SAPPORO(CHITOSE)(09:25)	ANA055	△△○—○————
3.	TOKYO (HANEDA)(08:50)	SAPPORO(CHITOSE)(10:20)	ANA057 1 1	△—△————
4.	TOKYO (HANEDA)(10:00)	SAPPORO(CHITOSE)(11:30)	ANA059 1 1	×—×————
5.	TOKYO (HANEDA)(11:00)	SAPPORO(CHITOSE)(12:30)	ANA061	△××—×————
6.	TOKYO (HANEDA)(13:00)	SAPPORO(CHITOSE)(14:30)	ANA063	△△○—○————
7.	TOKYO (HANEDA)(14:00)	SAPPORO(CHITOSE)(15:30)	ANA065	△△○—○————

FIG. 20

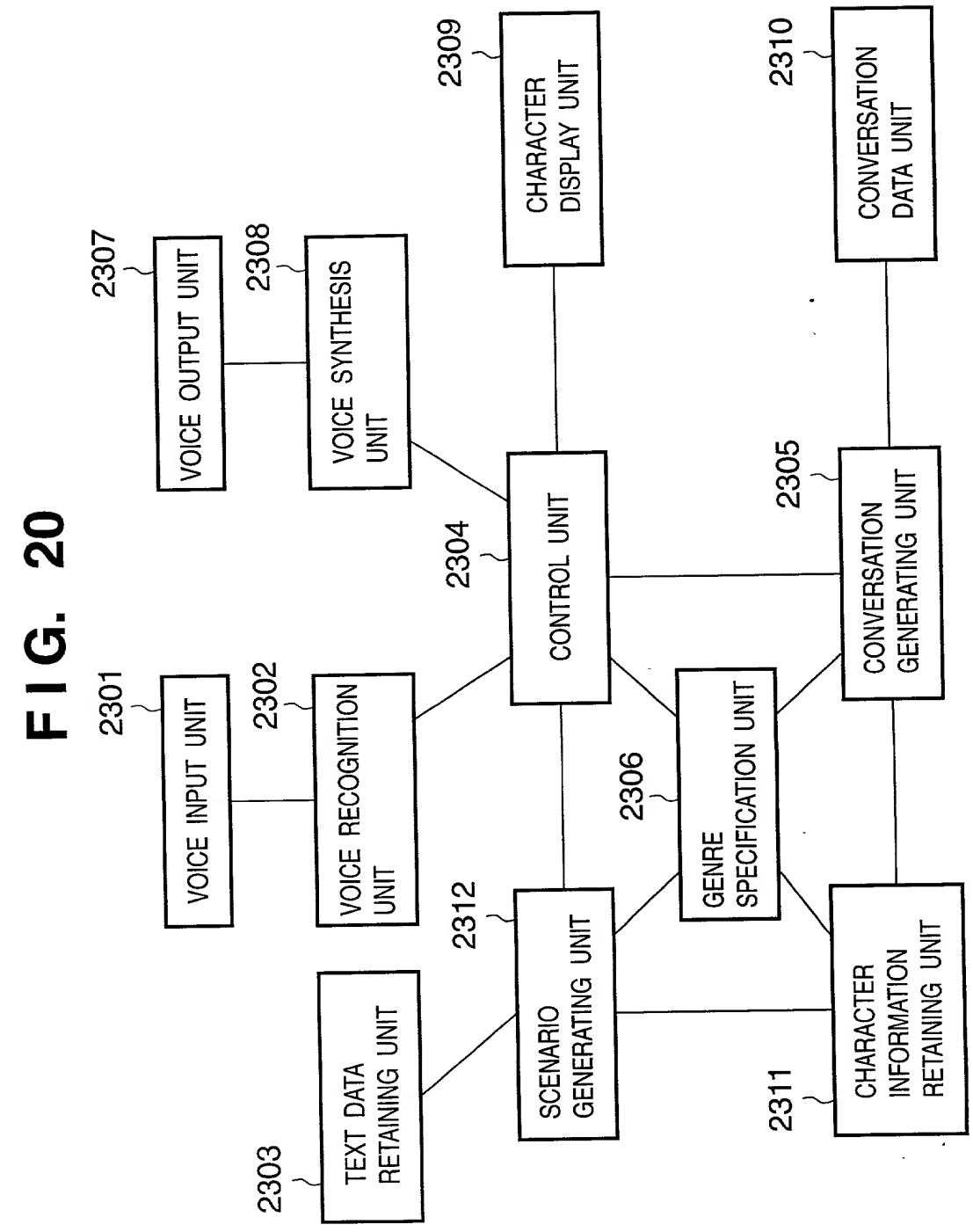

2301
VOICE INPUT UNIT
2302
VOICE RECOGNITION UNIT
2303
TEXT DATA RETAINING UNIT
2304
CONTROL UNIT
2305
CONVERSATION GENERATING UNIT
2306
GENRE SPECIFICATION UNIT
2307
VOICE OUTPUT UNIT
2308
VOICE SYNTHESIS UNIT
2309
CHARACTER DISPLAY UNIT
2310
CONVERSATION DATA UNIT
2311
CHARACTER INFORMATION RETAINING UNIT
2312
SCENARIO GENERATING UNIT

FIG. 21

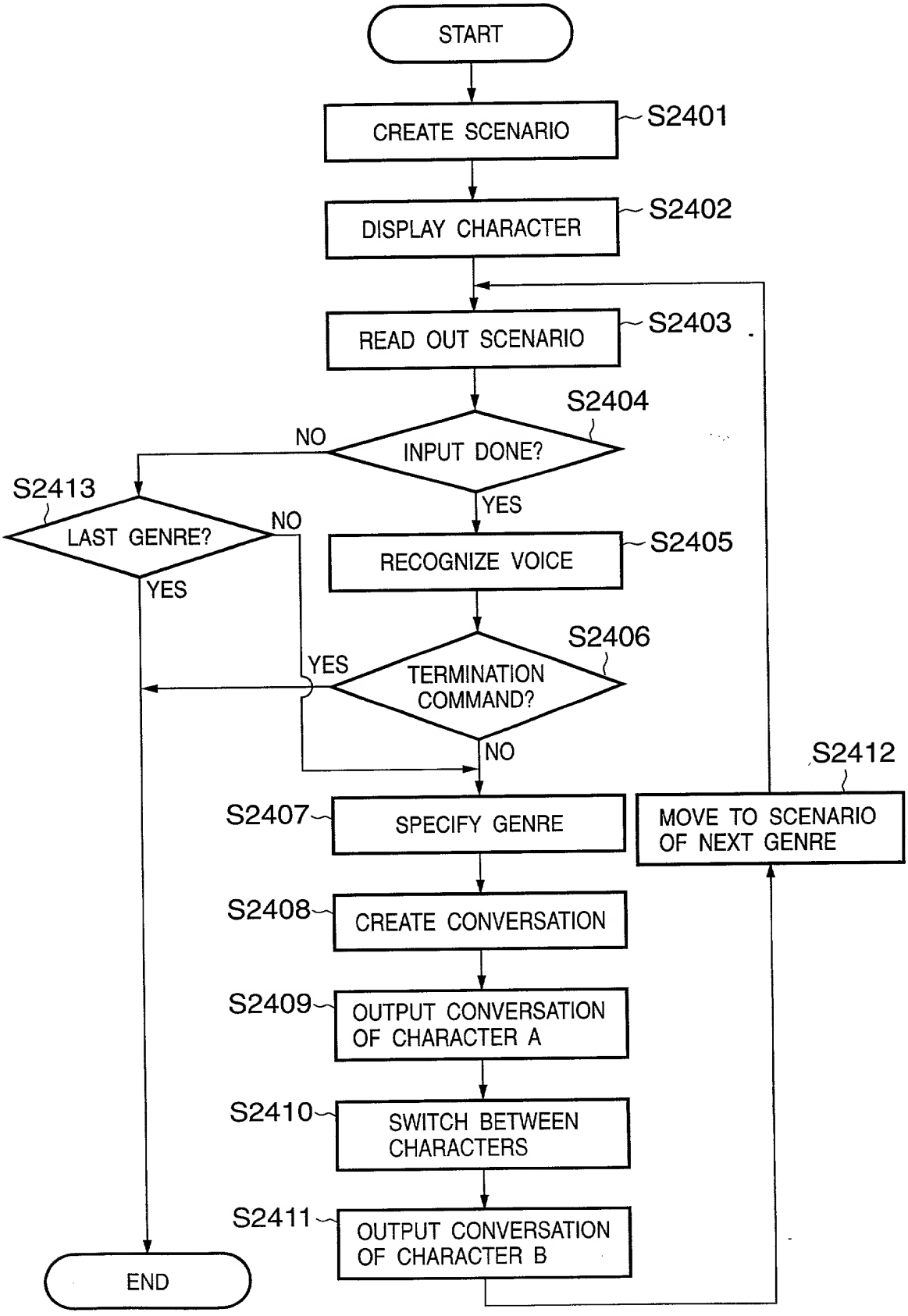
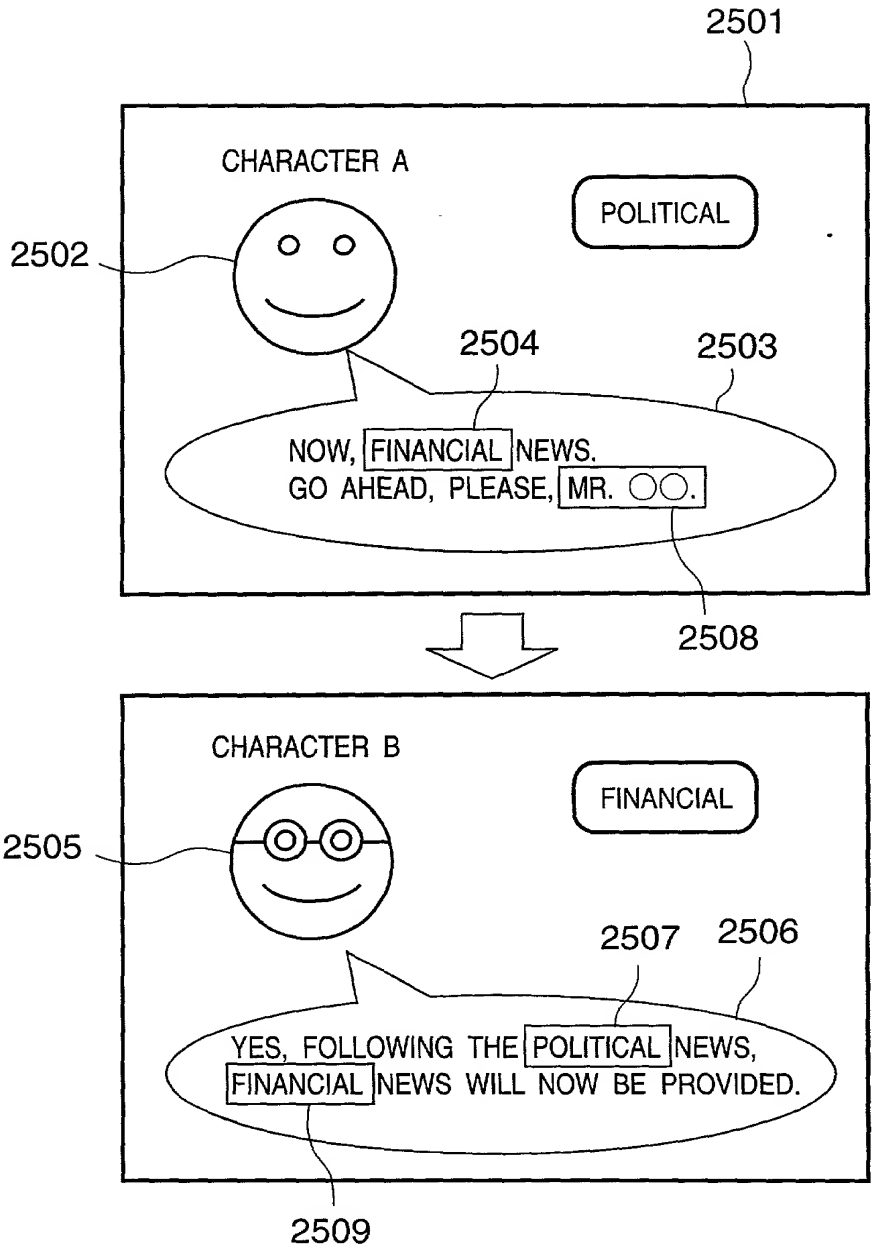

START
CREATE SCENARIO
S2401
DISPLAY CHARACTER
S2402
READ OUT SCENARIO
S2403
S2404
INPUT DONE?
NO
YES
S2413
LAST GENRE?
NO
YES
RECOGNIZE VOICE
S2405
S2406
TERMINATION COMMAND?
YES
NO
S2412
MOVE TO SCENARIO OF NEXT GENRE
S2407
SPECIFY GENRE
S2408
CREATE CONVERSATION
S2409
OUTPUT CONVERSATION OF CHARACTER A
S2410
SWITCH BETWEEN CHARACTERS
S2411
OUTPUT CONVERSATION OF CHARACTER B
END

FIG. 22


2501
CHARACTER A
POLITICAL
2502
2504
2503
NOW, FINANCIAL NEWS.
GO AHEAD, PLEASE, MR. ○○.
2508
CHARACTER B
FINANCIAL
2505
2507
2506
YES, FOLLOWING THE POLITICAL NEWS,
FINANCIAL NEWS WILL NOW BE PROVIDED.
2509